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THE
MORRIS ARBORETUM
OF THE
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Korean Pine
Pinus Koraiensis Sieb. & Zucc.

The Korean Pine, *Pinus Koraiensis,* Sieb. & Zucc., is a hardy, handsome pine of slow growth and dense habit from Japan and Korea. Its pyramidal top may reach a height of nearly a hundred feet. The bark is scaly, gray-brown or gray. The straight, dark-green leaves are from 2½ to 4¾ inches long. The short-stalked cones, from 3½ to 5½ inches long, are yellow-brown in color, the scales composing them being recurved and obstuse at the apex. (Rehder)

A specimen at the Arboretum was photographed for this illustration by Gustave Liebscher.

The cover drawing by Mr. Liebscher shows the Swan Pond and the Temple near the Head Gardener's Lodge on Hillcrest Avenue.

RODNEY H. TRUE, *Director*

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WILD GARDENS*

—BY—

ALBERT F. W. VICK

A BIT OF RUGGED STREAM, open meadow, or deep woodland, can be reproduced in your own back yard as the slope, moisture or shade indicate. We have a wealth of gorgeous native plants, flowers and ferns practically excluded from customary planting lists, not because they are difficult to grow, but because we have somehow felt that we could improve on nature, as seen here, by using plants from foreign lands. We forget that nature has been planting on this continent of ours for a good many million years, and that she has definitely decided what will grow best under the various existing conditions. She made our streams and forests a blaze of glory.

We started the devastating destruction that some would have us believe necessarily accompanies the progress of civilization, and the conservationists are finding it difficult to stop the habit of thoughtless destruction. So-called nature lovers still pull and yank at everything beautiful within their reach, and each year destroy tens of thousands of plants.

Start your wild garden in a normal, sane manner. Make a soil test, then select from nature's plant treasures what is best suited to your soil conditions. No blue such as the blues of blue Lobelia or fringed gentian have been found in Persia, India, China or Japan. Oriental coloring has given us nothing to compare with our cardinal flower, and do you remember the tangle of deciduous holly, hazelnut, paw-paw, and wild plum, down by the stream on the old farm, or the dogwoods, Judas trees, azaleas, and Kalmia, that made the hillsides famous? What spring is complete without arbutus, hepatica, jack-in-the-pulpit and violets? Just put them in your wild garden where they belong and where they will be happy. If your soil tests acid, choose from the acid-loving plants, of course, watching their moisture requirements, and the same if the soil be alkaline or neutral.

The tiny perennials will need watering and weeding for a year, or two, or three, until your ground cover is thoroughly established and able to take care of itself to the exclusion of undesirable weeds. If possible, never cultivate. Your wild garden will grow more and more beautiful each day and year, and the less care you give it, the mellower and more intriguing the tangle will become.

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*Abstract of lecture given at the Morris Arboretum on Saturday, January 8, 1938, by Mr. Vick.

Every wild garden should have a background. Nature's background for the dainty ferns and delicate wild flowers is a mass of rugged rocks, with a profusion of trees and shrubs, beneath which the colorful ground cover may find protection. Therefore, it is well to start with a stream or bit of woodland if you desire a successful wild garden. We believe in using the plants which belong there most naturally. Joe pye weed, purple or white boneset, iron weed, sun flower, cone flower, wild aster, even butterfly weed, can be used to form a glorious profusion of color in the damp meadow which is not too near to the residence. A bit of moist meadow near the house should be daintily and beautifully abloom in the spring with marsh marigold, mertensia and Jacob's ladder, in midsummer with wild senna, in late summer with cardinal lobelia, and in the autumn with blue lobelia, and both blind and fringed gentian. Considerable wooded areas can be rejuvenated, and their glory restored, with the return of the natural ground-cover planting. There is a peaceful majesty about the untouched woods, which has never been equalled in any cathedral or temple built built by the hand of man. If you doubt this statement, go out in the woods the next time you are really angry through and through, and see how long your anger will last. 'Twill be forgotten in a short time, for you must worship at nature's shrine.

Dogwoods, the Judas tree, pawpaw, deciduous holly, American holly, leatherwood, azaleas, chokeberry, Indian currant, should all be protected and encouraged.

American deciduous trees and shrubs should be selected for their spring bloom and their autumn coloring, and should be interspersed with native evergreens. Spotted wintergreen, round leaf wintergreen, checkerberry, Kalmia, laurel, rhododendrons, hepatica, arbutus, a wide variety of ferns, button bush, spice bush, the wild roses, and a host of other beautiful native plants should be reestablished to give our woodlands the glory of color they once wore.

Of course, we are criticized for spending money to propagate wild columbine, trilliums, marsh marigold and ferns, when the woods are so full of specimens to be had for the taking, but consider what the results would be if we continued this true American habit of taking all from nature and giving nothing back. We have spent generations destroying plants through the cutting of timber, through careless and thoughtless gathering of huge branches and tremendous bunches of wild flowers. The results have been amazingly disastrous. Therefore, I would like to close with a quotation from James Vick, Sr., the famous horticulturist:

> *"God made man a being, pure and simple in all his tastes, but before he created man he made a beautiful garden, and he put man in it to dress and keep it."*

HERB GARDENS*

—BY—

MRS. HOLLIS WEBSTER

THERE IS TODAY a keen and growing interest in the revival of the ancient herb garden, in which herbs, herbs, yarbs, or simples, were known to the humble healer before they interested the botanist. The folklore and traditions that surround the herbs are interwoven with the lives of all races. Herbs are happy in almost any home, and thrive even in neglect. Consequently, they have contributed to the most varied types of groupings, from the intricately designed knot gardens of Elizabethan times, with their topiary work, to the present. The Shakespeare garden is the period herb garden most commonly reproduced. The plants that Parkinson talks about in his *Paradisus* are in our nurseries today—thrift, winter savory, lavender-cotton, rosemary, sweet marjoram, bushy thymes, germander, lavender, and many more.

Theophrastus, about 300 B.C., described plants from the garden of his teacher, Aristotle, the Greek. The writings of Horace and Virgil are rich in suggestions as to the herbs which grew in Roman gardens of that era. Much is said of bees and of the herbs that best feed them—mugworts, borages, savory, sages, basils, honeywort (Cerinthe), nepeta and hyssop. A modern conceit is a bee-room leading through the hedge door into the herb garden.

In "Adam and Eve" gardens, with their wattled fences, the mediaeval reproduction may be enclosed by closely-planted viburnums, with their flexible twigs woven into a leafy wall. The "turf seats" are cushioned with turf, or with soft mats of sweet-smelling herbs—prostrate thymes, chamomile and calamint.

The famous physic gardens, beginning with the monastery gardens of the Middle Ages, furnished materials for the preparation by the monks of remedies of all kinds. Here grew madonna lilies, whose roots with the oil of roses made a healing salve, aconites, belladonna, foxglove, as well as culinary and pot herbs for salad and soup. Such gardens were maintained for their utility, and not until Strabo and Chaucer are there significant allusions to their aesthetic appeal. The attitude of the

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*Abstract of lecture given by Mrs. Hollis Webster at the Morris Arboretum on Saturday, February 12, 1938.

Middle Ages seems to be summed up in Charlemagne's reply to the question of his teacher. Alcuin asks, "What is an herb?" Charlemagne replies, "The friend of physician and the praise of cook."

With the returning interest in herbs and the making of herb gardens, this horticultural effort will take on more importance if, from adaptation of the foregoing historic types, we conform to the period architecture near by. Lists of plants compiled from old manuscripts are available, and innumerable treatises tell how to use the herbs. More perennials than those named can find a place. Consider elecampane, yarrow, ground ivy, feverfew, Herb Trinity, aconites, larkspurs, foxgloves, and many, many more.

An abandoned cellar hole may become part of a landscape plan reminiscent of the walled or herb-banked enclosures of Anglo-Saxon times. The side walls will grow wallflowers and bluebells at their best, with crevice herbs—thymes, low chamomiles, Corsican mint between the paving stones. Lavenders from the top of the wall fall in festoons over the edge to meet rosemary bushes below. The floor may be paved, or formally planted with herb beds.

Even small city backyards may harbor herb gardens. In spite of smoke, mother-of-thyme, ground ivy and mint (planted near the drip of the faucet), bugles, *Ajuga reptans,* and the later flowering species, *Ajuga genevensis,* thrive in such places. In spring, besides the narrow central path, bulbous herbs, squills, muscari, chives and narcissus appear, while honeysuckle and English ivy grow on the walls. For lavenders, marjorams and basils there is too little sunlight and fresh air. With study of the soil and a thorough liming once a year, a determined city gardener can make a fragrant as well as useful herb garden.

Window-ledge and porch boxes will supply the apartment dweller with culinary, salad and sweet-leaved things. With morning sun followed by shade, lemon balm, *Melissa officinalis,* Menthas, particularly orange mint, *Mentha piperita* var. *citrata* grow well and are better for frequent culinary cutting. Flowers for such boxes may be had from blue, pink and white hyssops and *Lonas inodora* (yellow). A box of special merit contained heliotrope, fringed lavender, heart's-ease, mignonette and green and purple basils. There was always some bloom. The sweet-leaved geraniums are commended. In out-of-door living rooms, particularly those with stone or paved floors, the usual box, bay and laurel in tubs may be augmented by southernwood

bushes, *Artemisia vulgaris,* rosemary and green santoline bushes. Pruning before transfer to containers holding good calcareous soil, is the only special treatment.

Window gardening with herbs is an age-old custom. Rosemary and marjoram will fill living rooms with fragrance and an atmosphere of gentle living. Ground ivy is interesting in a hanging basket. Fuchias, jasmines, scented geraniums, were with us before the Boston fern and rubber plants. The old "stove plants," pineapple sage, *Salvia rutilans,* and the Righte Dittany, *Origanum Dictamnus,* are here again as tender herbs. Plants change their habits when grown indoors, and fragrance is sometimes reduced. Santoline, marjoram and thyme grow trailing stems, and the orange mint loses the bronze in stem and leaf.

For color in winter windows, a pot of marigolds, the semi-double *Calendula officinalis,* makes sunlight. In a deep window box, chives, tarragon shoots, perennial onion sprouts, sorrel, parsley and chervil do well, if not too crowded. New green tips are cut for garnish, omelette or salad. A wet cloth stretched over a pan of water, sprinkled with seeds of mustard, *Barbarea vulgaris* and pepper grass *(Lepidium sativum),* in two or three weeks will furnish a piquant flavor for sandwich spread. Of course, these annuals, which germinate quickly, must be sown at intervals all winter.

Twelve most important kitchen herbs, in the order of their necessity for the speaker, would be: Rosemary, thyme, marjoram, mints, parsley, chervil, chives, horehound, lavender, burnet, rue and southernwood.

In those old gardens occasionally found near an ancient farmhouse, beside a winding road, may still be found beside the sweet old aromatic herbs, damask and cinnamon roses, bouncing Bet, tiger lilies and sweet rocket, a bush or two of honeysuckle, and lilacs, white and purple. It apparently was planted without design, just patches of herbs with well-trodden paths between them. Here grew perhaps in summer the tender lemon verbena and rose geranium, leaves always ready to use in jelly or cake; sage, savory, thyme and marjoram for soups and spice; lemon balm, mints, chamomile and catnip for teas; santolina, lavender, red bee balm seeds and sweet mugwort to put into sweet bags, and ambrosia and blush roses for the bride's bouquet. Southernwood at the doorstep, sweet woodruff under the syringas, valley lilies and violets running off into grassy edges, and other glimpses fill up a picture of restful simplicity, harmonizing with the soft gray shingles of the old dwelling, under whose shadows it breathes a more formal but gentler civilization.

WATER GARDENING*

—BY—

CHARLES L. TRICKER

WATER GARDENING IS, perhaps, the simplest and easiest of all forms of gardening. After the pool is once planted, none of the laborious tasks of ordinary gardening, such as, weeding, hoeing and watering, take away the joy and satisfaction obtained from the pool. Indeed, it is a simple matter to establish a pool and water garden if one will bear in mind three very simple rules which cover the things necessary for the sucessful cultivation of aquatics. These three essential things are: sun, water, and good soil.

In all gardening we are likely to be quite successful if we follow the little rules laid out before us by nature and try to duplicate the conditions under which we find things growing wild. Ask yourself the question, "Where did I ever find water lilies growing wild?" and I am sure your answer will be, "Never in shaded places—always out in full exposure to the sun." Another answer will be, "Never in swiftly running water, in fact, not where there is even a perceptible flow of current—always in still and quiet water." Thus, two very essential requirements are easily understood—full exposure to the sun, and still, quiet water.

We might think that soil from swamps would be ideal for aquatic gardening, but such is not the case. It is likely to be too sour or too acid, and would have to be treated for some time before it became fit to use anywhere. It is much better to prepare the soil by using three parts of good top soil or compost, and one part of thoroughly rotted cow manure. Water lily specialists have recently put upon the market a special fertilizer for aquatic gardening under the name of Praefecta. As it is a highly concentrated product, it should be used very sparingly. One part is sufficient for one bushel of soil. While I do not recommend bone meal as a balanced plant food, it is satisfactory to use at the rate of one quart to one bushel of soil, but *never* use either sheep manure or blood meal in preparing the soil. Both are stimulants, and both are quickly spent and likely to create a condition in the pool most unsatisfactory and unsightly.

Water gardening is not necessarily restricted to those with large estates, for one

*Abstract of lecture given at the Morris Arboretum on March 12, 1938, by Mr. Charles L. Tricker.

can get a great deal of satisfaction from a miniature pool. Any receptacle that is at least two feet across and one foot deep can be pressed into service as a miniature pool. A discarded wash tray, an old wash tub, a bath tub, a stock water trough, half of a hardwood barrel—any of these will make suitable miniature pools if made of any material except copper. Never use copper in water gardening. Special tubs designed for the purpose can be obtained at a small cost.

The method of establishing such a pool is to sink the tub almost to the rim in a position well exposed to the sun. Fill the tub half full with soil as already described, cover with one-half inch of clean sand, and fill with water. Do not drain the pool for planting. The purpose of filling before planting is to give the water an opportunity to warm up before planting. Such a receptacle is not large enough for more than one water lily, and a variety should be selected which is marked as being suitable for tub culture, or at least as being of moderate growth. One or two plants usually spoken of as "shallow water" or "bog plants" can be accommodated at the side of the tub or miniature pool. The Umbrella Palm, or even our common Cattails, make ideal subjects for that position. Two or three submerged plants, which perform a most useful function in the pool, may be used. These plants absorb carbon dioxide and throw off oxygen, thus helping to create a balanced condition in the pool. One floating plant, such as a Water Hyacinth, may be introduced into this miniature pool, but one must be careful that it does not crowd out other things.

A bath tub will accommodate twice as much as a tub garden, and would certainly be more enjoyable.

Portable steel pools are also obtainable at attractive prices. One pool measuring 4 feet wide, 7 feet long and 18 inches deep, can be obtained for as low as $19.50. It comes all assembled ready to install. It will accommodate three times as much as a tub pool.

An artificial pool is, perhaps, the next advanced step in water gardening. Such a pool may be made of any material except copper. However, an excellent pool may be made of ordinary tile set on end, the spaces filled up with concrete, the joints carefully cemented, and the whole inside, after the bottom has been put in, coated with cement. Cement blocks have been used in the same manner. Stone or bricks laid in any material that can be made into a watertight pool will answer the purpose.

It is well to have impressed upon our minds at the very beginning that a lily pool should never be more than 20 to 24 inches deep when completed, for water

lilies are not deep-rooting plants, neither do they enjoy deep water. Ten to twelve inches of water over 10 to 12 inches of soil is ample and, in fact, ideal.

To allow for a six-inch bottom, the excavation need be no more than 26 inches. Ordinarily, artificial pools are of regular shape—either rectangular, round or oval, and with straight sides. In the building of such pools, forms of lumber are required, back of which the concrete is poured. It is so much easier and so much cheaper to make an informal pool that I am sure you will bear with me while I tell you how very simple it is. First, mark out on the surface of the ground the outline of your proposed pool. It can be of any shape to fit into the particular location you select. Begin your excavating in the center, and dig down to a depth of 26 inches, or a trifle more if you desire to have the pool more than 20 inches deep when completed. Continue excavating toward the edge of the proposed pool, but instead of cutting down the edges straight, slope the excavation toward the edge of the pool. The angle of this slope should not be more than 45 degrees, and the excavation when completed will probably resemble a huge saucer sunk in the ground. Tamp down carefully the mixed concrete to a thickness of three inches over the entire excavation. Lay your reinforcing material on top of this concrete, and then complete the job with three inches more of concrete. When completed you will have the entire excavation covered with a 6-inch slab of concrete with the reinforcing material in the middle. The top edge of the pool can be finished with large stones, flat rocks and boulders, so as to give the appearance of a natural rock-bound pool.

Except in very small pools, I always recommend that the lilies be planted in separate containers holding not less than one bushel of soil. These containers may be 18 to 24 inches square and 10 to 12 inches deep, according to the depth of the pool.

If one is so fortunate as to own a meadow property, through which a small stream of water flows, it would be a very simple matter to make a natural pond by building a strong embankment at the lower end of the property, and excavating so as to impound water to a depth not exceeding two feet. In such a place water lilies and other plants can be planted directly in the soil at the bottom.

There are two kinds of water lilies, namely, hardy water lilies and tropical water lilies. The hardy water lilies are all closely related to our native sweet-scented pond lily, and can be obtained in all colors except blue. One characteristic of the

hardy lilies is that the flowers are borne on limp stems floating upon the surface of the water. In the latitude of New York, Cleveland and Chicago, the hardy lilies should not be disturbed until early May. By that time the water conditions ought to be such that they will start into active growth. The tropical water lilies are obtainable in all colors, and the outstanding characteristic is that they are borne on stout stems well above the surface of the water. Furthermore, the tropical lilies produce many more and much larger flowers during the season than the hardy lilies. They should not be planted, however, out of doors in the latitude of New York, Cleveland and Chicago, until the early part of June. They are rapid growers and quickly give results.

For miniature gardens, I can highly recommend in blue the variety Henry Shaw or Dauben, both of which are tropical lilies, as there are no hardy blue lilies.

In hardy lilies the best pink would be either Pink Opal or Marliac Flesh. In yellow, the variety Chromatella adapts itself very nicely to limited quarters, but the variety Yellow Pygmy is indeed most satisfactory. In the autumn shades are Solfatare and Aurora; in white, Marliac White, and in red, Gloriosa.

One must not forget that there are many other plants besides water lilies that can be adapted to pools. The several varieties of Lotus or Nelumbiums are most desirable for pools. Their foliage is unique, and their flowers are astonishingly beautiful and attractive.

The shallow water and bog plants offer a large field of interest. Some of the more common ones are the Arrowheads, Cattails, Hardy Callas, several varieties of Water Iris, the Papyrus, or Egyptian Paper Plant, Parrot Feather, variegated Sweet Flag, and the Umbrella Palms. In floating plants probably the best-known is the Water Hyacinth, but the Shell Flower or Water Lettuce, and the Water Fern, are equally interesting.

The best of the submerged or oxygenating plants is, without question, *Anacharis (Elodea)*. *Vallisneria* is another very useful plant for this purpose, and *Cabomba* and Milfoil *(Myriophyllum)* are also desirable.

Around artificial pools one can grow many of the moisture-loving perennials, but an abundant supply of moisture should be available for them at all times. However, it might be in keeping with the general design of the garden to work in, in back of the pool, an attractive rock garden.

PLANT DISTRIBUTION

BY THE

MORRIS ARBORETUM, UNIVERSITY OF PENNSYLVANIA

THE PLANTS listed below are ready for distribution to Associates of the Arboretum. All are trees or shrubs, many having distinct ornamental value. The supply in cases is limited. If it can be arranged, Associates are urged to visit the Arboretum and make selections. It is hoped that members may take their plants with them. Plants going beyond the Japanese beetle quarantine must have all soil removed from the roots.

Amorpha fragrans, Sweet — M1470
A native deciduous shrub having compound leaves and purple-blue flowers.

Amorpha fruticosa, Linn — M5395
A native species similar to the above.

Benzoin aestivale, Ness — M6674
The native Spice Bush. An upright, slender, deciduous shrub, bearing yellow flowers in spring and scarlet fruits in the autumn.

Berberis diaphana, Maxim — M105
A Chinese deciduous and spiny shrub having red fruits.

Berberis Bretschneideri, Rehd. — M5401
A Japanese species — A tall, wide-spreading shrub having purple fruits.

Berberis dictyophylla, Franch. — M4248
A Chinese species obtained from the Rock Expedition bearing red fruits.

Berberis — R-23339 — M4253
An unidentified Chinese Rock Expedition species raised from seed.

Berberis emarginata serrata, Schneid. — M5409
A low-growing species having red fruits.

Berberis Silva-Taroucana, Schneid. — M4250
Another Chinese species from the Rock Expedition bearing scarlet fruits.

Berberis Wilsonae subcaulialata, Schneid. — M6815
Deciduous or half-hardy shrub of Chinese origin.

Berberis yunnanensis, Franch. — M4251
This Chinese species was also obtained from the Rock Expedition collection.

Buxus sempervirens suffruticosa, Linn. — M376 and 377
An evergreen ornamental shrub known as "Edging Box."

Buxus sempervirens Handsworthii, K. Koch — M357

An upright form having larger dark-green leaves.

Chamaecyparis pisifera plumosa aurea, Beiss. — M1455

A golden-tipped variety of the Japanese Sewara Cypress having graceful plume-like foliage.

Chamaecyparis pisifera squarrosa, Beiss. — M1127

A glaucous, blue-green color form of the Sewara Cypress.

Celtis occidentalis, Linn. — M4624

A native deciduous tree, known as the Hackberry. Bears orange-red to dark-purple fruits.

Cornus alba. Linn. — M5389

A deciduous shrub having showy bright-red branches and bluish-white fruits. A Siberian and North China species.

Cotoneaster acutifolia, Turcz. — M5432-5435

A slender, spreading, deciduous shrub producing pale pink flowers and small black fruits. A native of China.

Cotoneaster acutifolia villosula, Rehd. & Wils. — M5431

Similar to the above species. From Central and Western China.

Cotoneaster horizontalis, Decne. — M4466-5443

Half-evergreen, low-spreading shrub bearing pinkish flowers and bright-red fruits. A western China species.

Forsythia suspensa Fortunei, Rehd. — M598

Vigorous growing, upright form, with the arching branches of the well-known Golden Bell.

Hypericum densiflorum, Pursh. — M4573

A small, upright, native, deciduous shrub bearing a profusion of small yellow flowers.

Hypericum patulum, Thunb. — M4408 and 4495

Half-evergreen, low-spreading shrub having an abundance of golden-yellow flowers. A Japanese species.

Hypericum prolificum, Linn. — M4496

Small deciduous shrub having upright branches and bright yellow flowers. A native species.

Ilex verticillata, Gray — M5466

A native, deciduous, spreading shrub valued chiefly for the decorative bright-red fruits. One of our finest berried plants.

Lonicera notha carnea-rosea — M4910 — Bush Honeysuckle

A deciduous, spreading, flowering and fruiting shrub of horticultural origin.

Lonicera Ruprechtiana, Reg. — M4513

A Chinese species of upright form, producing coral or orange-red fruits.

Lonicera tatarica alba, Loisel — M4916

A medium-size variety having pure white flowers and red fruits.

Lonicera tatarica rosea alba, Regel — M4914

Similar to the above, but having rosy-pink flowers.

Lonicera tatarica Leroyana, Rehd. — M4919

A more compact form producing pink flowers.

Lonicera xylosteum, L. — M2345

A European species having yellowish-white flowers and dark red fruits.

Malus pumila Niedzwetzkana, Schneid. — M1735

An interesting and useful crab-apple of large size, good flavor and the flesh of the fruit red throughout. One-year-old grafted scions from the Arboretum specimen. Of Southwestern Siberian and Turkestan origin.

Neillia sinensis, Oliv. — M469

A graceful, slender branching low shrub bearing pink flowers. Suckers well, thus forming dense clumps. A Central China species.

Rhamnus infectoria, L. — M5513

A spreading, deciduous shrub of European origin.

Rhododendron japonicum suringar x R. molle, G. Don — M5520 (Azalea molle hybrids) hort.

Erect-growing, deciduous shrubs having large, conspicuous flowers ranging in color from yellow to salmon-red.

Rhodotypus scandens, Mak. — M4549

A spreading, deciduous shrub having large white flowers followed by black fruits. Native of China and Japan.

Salix purpurea amplexicaulis, Boiss. — M528

A variety of the Purple Osier. A low-branching and spreading shrub willow from Southeastern Europe and Western Asia.

Securinega ramiflora, Muell. — M4703

A medium-size, deciduous shrub having slender, spreading branches, of graceful form. An ideal specimen plant for the lawn. Asiatic origin.

Spiraea alba, Dur. — M5966

A native, upright, deciduous flowering shrub of decorative value.

Spiraea Billiardii, Herincq.

A free flowering hybrid producing dense panicles of bright rose flowers.

Spiraea Lenneana — M5907

Similar to the above.

Spiraea myrtilloides, Rehd. — M5796

A slender spreading shrub bearing a profusion of white flowers. A Western China species.

Spiraea pseudo-Douglasii — M5912
A closely-related form of the beautiful deep-rose flowering Douglasii.

Spiraea salicifolia x S. superba — M5916 and 5917
An interesting hybrid between a plant having pinkish-rose colored flowers and a European and Asiatic species having rose-colored flowers.

Spiraea sanssouciana, K. Koch — M5918
Another hybrid between the garden variety Douglasii and a true Japanese species of upright habit and floral beauty.

Symphoricarpus albus laevigatus, Blake — M4556
A native variety of the Snowberry, but having larger fruits. Dwarf deciduous shrubs valued for their attractive fruits.

Symphoricarpus orbiculatus elongatus, Hort. — M5920
A varietal form of the Indian Currant, having small red fruits.

Staphylea pinnata, L. — M4552
An upright, deciduous shrub having greenish-white flowers followed by inflated fruits. The European Bladdernut.

Thuja occidentalis vervaeneana, Gord. — M2563
A varietal form of the American Arbor-vitae—smaller than the species.

Viburnum dilatatum, Thunb. — M5546A.
A Japanese upright deciduous shrub having scarlet berries.

FINAL WINTER LECTURE

THE LECTURE COURSE at the Morris Arboretum for the 1938 season dealt with plants in various types of ornamental groupings. The speakers were well-known authorities in their several lines.

April 9, 1938

MR. ROBERT S. STURTEVANT — *Beds and Borders*

Mr. Robert S. Sturtevant, of Groton, Massachusetts, a well-known landscape architect, will speak on Beds and Borders, covering perhaps the more usual types of planned ornamental groupings.

The lecture will be given in the auditorium of the Morris Arboretum, at Chestnut Hill, on the second Saturday of April, at 2:30 o'clock. Admission is free, and cars may be parked opposite the entrance on Meadowbrook Lane.

HERBARIUM ACCESSIONS OF WOODY PLANTS DURING 1937

BY GIFT

Adams, J. W.—From New Jersey and Pennsylvania	794
Adams, J. W. & Myrtle T.—From Pennsylvania	39
Adams, J. W. & Wherry, Edgar T.—From Maryland	58
Bickford, Ruth—From Texas and California	3
Brubaker, Ethel—From Lancaster County, Penna.	102
Deam, C. C.—From Indiana	5
Dornan, J.—From North Carolina	6
Fender, Flora S.—From New Jersey and Pennsylvania	109
Fogg, John M., Jr.—From New Jersey, Penna. and Virginia	285
Fosberg, F. R.—From Hawaiian Islands and New Jersey	32
Glowenke, Stanley L.—From Northeastern Pennsylvania	12
Koster, Hollis—Oaks from New Jersey	3
Lambert, James and Bertha—From United States and Canada	31
Langman, Ida K.—From Monroe County, Penna.	31
Neal, Oliver M., Jr.—From Maine	4
Smith, Katherine G.—From New Jersey	8
Travis, Mildred T.—From Pennsylvania	6
True, Rodney H.—From Maine, New Jersey, Penna. and Maryland	41
Wagner, Paul R.—From Schuylkill County, Penna.	118
Wherry, Edgar T.—From Western United States (Mostly woody phlox)	352
Wherry, Edgar T. & Fender, Flora S.—From New Jersey	6

BY EXCHANGE

Bailey Hortorium, Cornell University—From Africa, etc.	70
McFarlin, J. B.—From Florida	229
Missouri Botanical Garden, St. Louis, Mo.—From Western United States	50
New York State College of Agriculture, Cornell University—From New York State	346
Purer, Edith M.—From California	18
Rutgers University, New Brunswick, N. J.—From Jamaica and New Jersey	84
University of Montreal, Montreal, Canada—From Canada	199
University of Pennsylvania—For herbaceous plants	136
TOTAL	3,177

On March 15, 1938, the grand total of mounted and distributed specimens in the Herbarium was 19,548.

J. W. ADAMS